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10/799,724	03/15/2004	Hansjorg Ander	3868-0156P	2073
2292 7590 01/22/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER DESAL, ANISH P				
ART UNIT 1794		PAPER NUMBER		
NOTIFICATION DATE 01/22/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/799,724

**Applicant(s)**

ANDER ET AL.

**Examiner**

ANISH DESAI

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-24, 26-33 and 36-40 is/are pending in the application.  
4a) Of the above claim(s) 36 and 37 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 21-24, 26-33 and 38-40 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed on 10/29/08 after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/29/08 has been entered.
2. Support for the amended claims is found in the specification as originally filled.
3. The 35 USC Section 103(a) rejections based on Bonk et al. (US 4,731,273) are withdrawn in view of the present amendment and response. Similarly, the 35 USC Section 103(a) rejections based on Woods (US 4,414,275) are withdrawn. Moreover, the 35 USC Section 103(a) rejections based on Komiyama et al. (US 5,118,567) are withdrawn as well.
4. A new 35 USC Section 103(a) rejection based on Wambeke et al. (US 5,741,014) in view of Bonk et al. (US 4,731,273) and Czepel et al. (US 4,277,532) is made.
5. In view of the newly amended claims, a new 35 USC Section 112-second paragraph rejection is made.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 21-24, 26-33, and 38-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. Regarding claim 21 language "wherein said cross-sectional contour deviates from a flat two-dimensional geometry" is grammatically ambiguous. It is respectfully submitted that a cross-section of an object is two-dimensional; therefore it is not clear as to how Applicant's cross section deviates from a flat-two dimensional geometry or what is meant by such language. From the present specification (see paragraph 0007 of US Patent Application Publication of this application), it appears that Applicant's deviation of cross-section is *relative to the flat two-dimensional geometry of the known adhesive tapes*. However, the claim merely recites that the cross-sectional contour deviates from a flat two-dimensional geometry. As such, the claim raises an issue of indefiniteness.

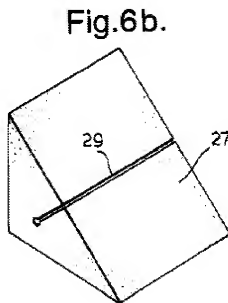
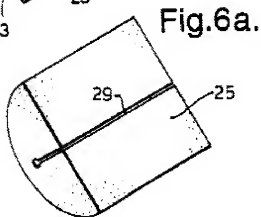
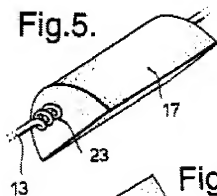
### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 21, 23, 28, 30-33, and 38-40 are rejected under 35 U.S.C. 103(a) as obvious over Wambeke et al. (US 5,741,014) in view of Bonk et al. (US 4,731,273) and Czepel et al. (US 4,277,532).
9. Regarding claim 21, Wambeke discloses a duct sealing material 17 (see abstract). Further, the sealing material of Wambeke is formed of pressure sensitive adhesive, reactive gels, and water-curable mastics (column 5 lines 30-35)
10. The sealing material 17 of Wambeke is shown below in Figures 5, 6a and 6b.



11. It is respectfully submitted that the cross-sectional contour of the sealing material of Wambeke as shown above deviates from a flat-two dimensional geometry, the cross-sectional contour is semi-circular, triangular, quadrangular (i.e. rectangular), and

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polygonal (i.e. rectangular), and a surface that is bent, curved, or provided with edges corresponding to the cross-sectional contour.

12. As to the recitation "wherein said material is present in the form of "strings, strand, and strips", it is noted that Applicant has not defined in the specification or claims what is meant by "strings, strand, and strip". The term "strip" is defined by the Merriam Webster online Dictionary as following:

Main Entry: <sup>2</sup>**strip**

Function: *noun*

Etymology: probably alteration of <sup>3</sup>*stripe*

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**1 a** : a long narrow piece of a material **b** : a long narrow area of land or water

**2** : AIRSTRIPE

**3** : a commercially developed area especially along a highway

**4** : COMIC STRIP

**5** : STRIPTease

13. Accordingly, the sealing material of Wambeke is interpreted to read on the sealing material is present in a form of a strip as claimed.

14. Regarding claim 21, the difference between the claimed invention and the prior art of Wambeke is that Wambeke is silent as to teaching "wherein said stings, strands or strips have a thickness...wherein said material is produced by polymerization...styrene."

15. However, Bonk discloses a heat-recoverable closure with a crosslinked pressure-sensitive adhesive (PSA) (abstract), wherein the PSA of Bonk comprises acrylate terpolymer and a crosslinking agent (column 2 line 61 and column 3 line 1).

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Additionally, the PSA of Bonk comprises dimethacrylate (column 5, line 43). Further, the disclosure of Bonk in "Technical Field" and at column 1 lines 45-50 regarding hermitically sealing of the cable is interpreted as Bonk's invention is useful in sealing applications.

16. Regarding claim 23, Bonk discloses that the PSA of his/her invention includes a polyfunctional acrylate monomer which is any compound having two or more acrylate or methacrylate functionalities per molecule (column 5, lines 38-40) and discloses pentaerythritol tetra-acrylate (column 5, line 45). With respect to claim 28, it is noted that Bonk discloses that the addition polymerization is preferably accomplished by the use of a use of a photoinitiator and radiation (e.g. UV). According to Bonk, particular techniques of polymerization are disclosed in US Pat 4,181,752 (column 4, lines 30-37) which is incorporated by reference in Bonk reference (column 4 lines 35-37). The US Pat 4,181,752 discloses use of 0.01 to 5 parts of a photoinitiator (column 4, lines 7-8).

17. With respect to claim 30, Bonk discloses teaches that it has been found desirable to incorporate in the adhesive composition reinforcing filler such as metal oxide (column 7, lines 48-53) in the amount of about 2% to about 7% by weight (column 7, lines 59-60). Regarding claim 32, Bonk discloses the adhesive comprising fumed silica (column 7, line 58), which is equated to the colorant. With respect to claim 33, Bonk discloses the adhesive comprising a crosslinking agent in an amount of from about 0.8% to about 10% by weight (column 3, lines 7-8).

18. With respect to claim 38, it would have been obvious to present the sealing material of Wambeke in the form of rolled or continuous material, motivated by the

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desire to suitably package the sealing material. With respect to claim 40, it is noted that Wambeke discloses general conditions of claim, except for the ratio of the width to height. Therefore, selecting the ratio of width to height of Wambeke's sealing material having quadrangular cross-sectional contour would have been obvious, motivated by the desire to suitably form a sealing material that can be used in the duct sealing applications.

19. It is noted that the primary reference of Wambeke generally desires PSA in the formation of the sealing material, but Wambeke is silent as to teaching a specific PSA. Secondary reference of Bonk provides a necessary PSA.

20. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the PSA of Bonk in the invention of Wambeke, motivated by the desire to practice the invention of Wambeke and provide a suitable high strength sealing.

21. Wambeke as modified by Bonk is silent as to teaching the thickness of the sealing material as claimed and the presence of the flame-proofing agent (claim 31).

22. However, Czepl discloses thermally-expandable sealants for joints, cavities or holes (abstract). Further at column 1 lines 10-15, Czepl discloses a sheet-like joint sealant having a thickness of 1.9 mm, which meets Applicant's claimed thickness of 0.5 to 80 mm (claim 21) and 0.5 to 10 mm (claim 39). Further, Czepl's sealant composition includes **up to 80** parts by weight of aluminum hydroxide (column 2 lines 5-20), which is a known flame retardant.



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23. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the sealing material of Wambeke having the thickness as taught by Czepel, motivated by the desire to practice the invention of Wambeke.

24. With respect to claim 31, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add a flame-proofing agent in the amount as claimed, motivated by the desire to provide flame retardancy to the sealing material.

25. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wambeke et al. (US 5,741,014) in view of Bonk et al. (US 4,731,273) and Czepel et al. (US 4,277,532) as applied to claim 21 above, and further in view of Woods (US 4,414,275).

26. Wambeke as modified by Bonk and Czepel is silent as to teaching claim 22.

27. However, Woods discloses a flexible adhesive tape that can be used as sealants (column 2, lines 53-54). According to Woods, the adhesive composition is based upon one or more acrylate (including methacrylate) monomers generally to the art for adhesive purpose (column 3 lines 67-68 and column 4 lines 1-2). Further the adhesive tape of Woods comprises polymerizable acrylate ester monomers such as isobornyl methacrylate (column 4, lines 60-62).

28. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the isobornyl methacrylate in formation of the

sealing material, because selection of a known material based on its suitability for its intended use establishes a *prima facie* case of obviousness.

29. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wambeke et al. (US 5,741,014) in view of Bonk et al. (US 4,731,273) and Czepel et al. (US 4,277,532) as applied to claim 21 above, and further in view of Stanek (US 3,959,052).

30. Wambeke as modified by Bonk and Czepel is silent as to teaching claim 24.

31. However, Stanek discloses a wrap around heat shrinkable article. Further at column 5 lines 40-50 Stanek discloses "The surface of the sheet shown in FIG. 1 or the interior of the tubular article shown in FIG.2 are commonly coated with a sealant material adapted to...Suitable sealants are well-known in the art and include materials such as **vinyl acetate polymer**, wax, polyisobutenes and the like."

32. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select vinyl acetate as a sealing material, because selection of a known material based on its suitability for its intended use establishes a *prima facie* case of obviousness.

33. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wambeke et al. (US 5,741,014) in view of Bonk et al. (US 4,731,273) and Czepel et al. (US 4,277,532) as applied to claim 21 above, and further in view of Flint (Re. 30,843).

34. Wambeke as modified by Bonk and Czepel is silent as to teaching claim 26.

35. However, Flint discloses an epoxy tape useful as an adhesive sealant (abstract). Further at column 1 lines 60-65 to column 2 lines 1-5; Flint discloses epoxy resin that is based on bisphenol A.

36. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the known epoxide such as bisphenol A in the sealing material, because selection of a known material based on its suitability for its intended use establishes a *prima facie* case of obviousness.

37. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wambeke et al. (US 5,741,014) in view of Bonk et al. (US 4,731,273) and Czepele et al. (US 4,277,532) as applied to claim 21 above, and further in view of Komiyama et al. (US 5,118,567).

38. Wambeke as modified by Bonk and Czepele is silent as to teaching claim 27.

39. However, Komiyama discloses an adhesive tape comprising an adhesive layer formed on one surface of the base sheet wherein the adhesive layer comprises a (meth)acrylate polymer, an epoxy resin, a photopolymerizable low molecular weight compound, and a heat activable potential curing agent for the epoxy resin and a photopolymerization initiator for the photopolymerizable low molecular weight compound (abstract).

40. With regards to claim 27, Komiyama discloses that the (meth) acrylate polymer may be a homopolymer of (meth)acrylate (column 3, lines 31-32). Additionally, Komiyama discloses that the term "(meth)acrylate polymer" used herein is meant

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polymers primarily (at least 50 mol%) comprising structural units derived from at least one (meth) acrylate i.e. acrylate or methacrylate. Examples of the suitable (meth)acrylates include, for example, glycidyl acrylate and methacrylate (column 3, lines 21-27). This disclosure is interpreted as the entire (meth)acrylate polymer can be formed of a structural units derived from glycidyl methacrylate, which reads on the epoxide acrylate is a homopolymer of glycidyl (methacrylate).

41. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the adhesive composition including epoxide acrylate such as a homopolymer of glycidyl methacrylate, because selection of a known material based on its suitability for its intended use establishes a *prima facie* case of obviousness.

42. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wambeke et al. (US 5,741,014) in view of Bonk et al. (US 4,731,273) and Czepel et al. (US 4,277,532) as applied to claims 21 and 28 above, and further in view of Lautenschlaeger et al. (US 4,814,215).

43. Wambeke as modified by Bonk and Czepel is silent as to teaching claim 29.

44. However, Lautenschlaeger discloses an adhesive composition, process and product. Further, Lautenschlaeger discloses that various mastic products, for example, sealants and preformed tapes and strips are known for mounting window glass (column 1, lines 37-39). Moreover, Lautenschlaeger discloses that photo-initiators are used to increase the rate of cure in the case of cure by UV radiation (column 11, lines 42-43).

Further, Lautenschlaeger discloses typical examples of photoinitiators such as Irgacure 184 (1-hydroxy-cyclohexyl-phenyl-ketone) (column 11, lines 47-48).

45. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose a suitable photoinitiator from the examples of photoinitiators provided by Lautenschlaeger, because selecting a known compound to meet known requirements involves routine skill in the art.

#### ***Response to Arguments***

46. Applicant's arguments filed on 10/29/08 have been fully considered but they are moot in view of a new ground of rejection.

#### ***Conclusion***

47. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

48. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

49. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1794

/Hai Vo/

Primary Examiner, Art Unit 1794